

*Friction Ring for a Friction roll
for the Driving of a Spool on a Textile Machine*

Claims

Claimed is:

1. A friction ring on a friction roll for friction drive as well as partial shape contact drive of a spool on a textile machine, whereby the friction roll possesses at least one rotatable roll body carrying a friction ring, therein characterized, in that the friction ring (2; 6; 7) is designed in the manner of a belt with two open ends (20, 21; 60, 61; 70, 71), which are bound together by means of a fastening apparatus (3; 4; 5; 8; 9).
2. A friction ring in accord with claim 1, therein characterized, in that the fastening apparatus (4; 5; 8; 9) simultaneously serves as an affixing means.
3. A friction ring in accord with claim 2, therein characterized, in that the fastening apparatus (4) possesses a bolt (40) as a designed affixing means.
4. A friction ring in accord with claim 2, therein characterized, in that the fastening apparatus (5; 8) includes a back cut groove (15; 16), parallel to the axis for the shape based reception of the fastening apparatus (5) which possesses at least one protuberance (53), complementary to said groove or includes the two ends (70, 71) of the friction ring (7).

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5. A friction ring in accord with one or more of the claims 1 to 4, therein characterized, in that the friction ring (2; 6; 7), when at a separating distance from its two ends (20; 21; 60; 61; 70; 71), with the aid of at least one auxiliary fastener (80, 81) is affixed on the roll body (10;12) or to the friction roll (1).
6. A friction ring in accord with claim 5, therein characterized in that the fasteners (4; 5; 80; 81) are distributed equally over the circumference of the roll body (10; 12) or of the friction roll (1).
7. A friction ring in accord with one or more of the claims 1 to 6, therein characterized, in that the fastening apparatus (3; 9) possesses two connectors (30, 31; 90, 91), which are bound to the thereto assigned ends (20, 21; 60, 61) of the friction ring (2; 6).
8. A friction ring in accord with one or more of the claims 1 to 7, therein characterized, in that the fastening apparatus (4) extends itself through both ends (20, 21) of the friction ring (2) and/or through both connectors (30, 31), penetrating therethrough into a recess (101) in the roll body (10;12) or in the friction roll (1).
9. A friction ring in accord with claim 7 or 8, therein characterized, in that the two connectors (30, 31) possess clip elements or are constructed as such.

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10. A friction ring in accord with one or more of the claims 7 to 9, therein characterized, in that the two connectors (30, 31) possess hooks (305, 315) which can be engagingly brought together.
11. A friction ring in accord with claim 10, therein characterized, in that the backs (306, 316) of the two hooks (305, 315) are built in slanted manner.
12. A friction ring in accord with claim 10 or 11, therein characterized, in that the two hooks (305, 315) are subjected to load in their locking direction relative to the direction of drive (f_1) of the friction ring (2).
13. A friction ring in accord with one or more of the claims 1 to 12, therein characterized, in that the surfaces (200, 210; 300,310) of the friction ring (2), as well as the two connectors (30, 31) form a shape based connection.
14. A friction ring in accord with one or more of the claims 1 to 13, therein characterized, in that the length of the elastically constructed friction ring (2; 6; 7) including the connectors (30, 31) is so dimensioned, that the friction ring (2) in its closed position is subjected to tensile force on the roll body (10; 12).

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15. A friction ring in accord with claim 14, therein characterized, in that the friction ring (2; 5; 7), in its untensioned state, exhibits a cross-section which diminishes from the center to the edge (s₃, s₄).
16. A friction ring in accord with claim 14 or 15, therein characterized, in that the friction ring (2; 6; 7) in the untensioned state possesses a width (b₁, b₂) which diminishes with increasing distance from its connectors (30, 31).
17. A friction ring in accord with claim 15 or 16, therein characterized, in that the cross-sectional diminution (s₂, s₄) over the width of the untensioned friction ring (2; 6; 7) and/or the width lessening (b₁, b₂) along the length of the untensioned friction ring (2; 6; 7), in consideration of the tension of the said friction ring (2; 6; 7) in its tensioned state on the roll body (10; 12), are dimensioned in such a manner that the cross-sectional and the width runs of the friction ring (2; 6; 7) in the tensioned state are essentially constant.
18. A friction ring in accord with one or more of the claims 1 to 17, therein characterized, in that the two connecting elements (30, 31; 90, 91) and/or the friction ring (2; 6; 7) possess a precurvature which conforms to the curvature of the circumference of the roll body (10; 12).

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- 19 A friction ring in accord with one or more of the claims 1 to 18, therein characterized, in that the two open ends (20, 21; 60, 61; 70, 71) of the friction ring (2; 6; 7) are adhesively joined together.
20. A friction ring in accord with one or more of the claims 1 to 19, therein characterized, in that the two open ends (20, 21; 60, 61; 70, 71) of the friction ring (2; 6; 7) have prepared points for adhesion.
21. A friction ring in accord with claim 20, therein characterized, in that the prepared points for adhesion are covered before the connection.
22. A friction ring in accord with claim 20, therein characterized, in that the prepared points of adhesion can be activated with light or heat.

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